

Specifications



Photo is representative



Eaton 167820

Eaton Moeller® series MSC-DE DOL starter,
I_r= 3 - 12 A, 24 V DC, DC Voltage

General specifications

PRODUCT NAME	Eaton Moeller® series MSC-DE DOL starter
CATALOG NUMBER	167820
MODEL CODE	MSC-DE-12-M17- SP(24VDC)
EAN	4015081643974
PRODUCT LENGTH/DEPTH	145 mm
PRODUCT HEIGHT	272 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	1.274 kg
CERTIFICATIONS	CE CSA-C22.2 No. 14-10 CSA Class No.: 3211-08 VDE 0660 CSA IEC/EN 60947-4-1 UL CSA File No.: 012528 UL Category Control No.: NKJH UL File No.: E123500 UL60947-4-1A
GLOBAL CATALOG	167820



Powering Business Worldwide

Product specifications

TYPE	Starter with electronic trip unit
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND	Meets the product

Resources

BROCHURES	eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf eaton-msfs-motor-starter-feeder-system-brochure-br034005en-en-us.pdf
CATALOGS	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf Product Range Catalog Switching and protecting motors
DECLARATIONS OF CONFORMITY	eaton-dol-starter-declaration-of-conformity-uk251161en.pdf eaton-dol-starter-declaration-of-conformity-eu250678en.pdf
DRAWINGS	eaton-manual-motor-starters-msc-d-dol-starter-dimensions.eps eaton-manual-motor-starters-mounting-msc-d-dol-starter-3d-drawing.eps eaton-manual-motor-starters-msc-d-dol-starter-3d-drawing.eps
ECAD MODEL	ETN.167820.edz
INSTALLATION INSTRUCTIONS	IL03402052Z
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	DA-CD-msc_de_sp DA-CS-msc_de_sp
SALES NOTES	eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf
WIRING DIAGRAMS	eaton-manual-motor-starters-device-msc-d-dol-starter-wiring-diagram.eps

CREEPAGE DISTANCES	standard's requirements.
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
FITTED WITH:	Short-circuit release
POLLUTION DEGREE	3
CLASS	Adjustable
CONNECTION TO SMARTWIRE-DT	No
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
MODEL	UL Type E starter
ALTITUDE	Max. 2000 m
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
VOLTAGE TYPE	DC
MOUNTING METHOD	DIN rail
CURRENT FLOW TIMES - MIN	Note: Going below the minimum current flow time can cause overheating of the load (motor). For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods. 900 (Class 15) AC-4 cycle operation, Main conducting paths 1000 (Class 20) AC-4 cycle operation, Main conducting paths

	500 (Class 5) AC-4 cycle operation, Main conducting paths 700 (Class 10) AC-4 cycle operation, Main conducting paths
OVERVOLTAGE CATEGORY	III
CONNECTION	Screw terminals
CUT-OUT PERIODS - MIN	≤ 500 ms, main conducting paths, AC-4 cycle operation
FUNCTIONS	Temperature compensated overload protection
OVERLOAD RELEASE CURRENT SETTING - MIN	3 A
POWER CONSUMPTION (SEALING) AT DC	0.86 W
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V	0 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V	0 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 480 Y/277 V	0 A
RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 600 Y/347 V	0 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
RATED OPERATIONAL	12 A

CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	10 kA, SCCR (UL/CSA) 150 A, max. CB, SCCR (UL/CSA) 200 A, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	65 kA, CB, SCCR (UL/CSA) 100 kA, Fuse, SCCR (UL/CSA) 100 A, Class J, max. Fuse, SCCR (UL/CSA) 75 A, max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	100 kA, Fuse, SCCR (UL/CSA) 110 A, Class J/CC, max. Fuse, SCCR (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	15 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
RATED OPERATIONAL CURRENT (IE)	16.7 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	12 A
RATED OPERATIONAL VOLTAGE	208 - 600 V AC
SHORT-CIRCUIT CURRENT RATING (TYPE E)	18 kA, 240 V, SCCR (UL/CSA) 18 kA, 480 Y/277 V, SCCR (UL/CSA)
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	7.5 HP
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	4.2 W
HEAT DISSIPATION	0 W

CAPACITY PDISS	
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.4 W
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1
NUMBER OF COMMAND POSITIONS	0
NUMBER OF PILOT LIGHTS	0
OVERLOAD RELEASE CURRENT SETTING - MAX	12 A
RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	7.5 kW
RATED POWER AT 460 V, 60 HZ, 3-PHASE	5.52 kW
RATED POWER AT 575 V, 60 HZ, 3-PHASE	0 kW
SHORT-CIRCUIT RELEASE (IRM) - MAX	186 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0.86 W
COORDINATION CLASS (IEC 60947-4-3)	Class 2
DEGREE OF PROTECTION	IP20 NEMA Other
ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT	Screw connection
ACTUATING VOLTAGE	24 V DC
POWER CONSUMPTION	0.9 W

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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